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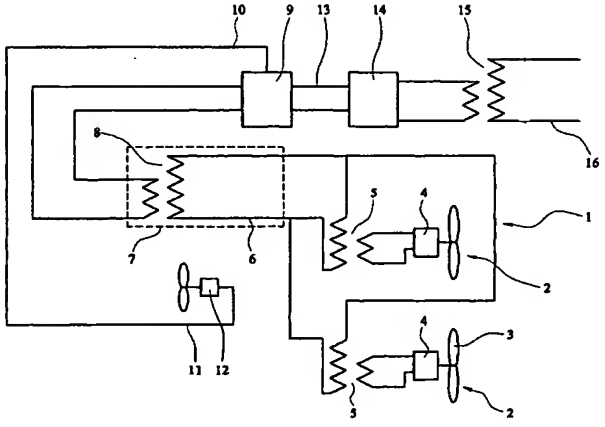
(54) Title: APPARATUS FOR GENERATING ELECTRICAL POWER FROM TIDAL WATER MOVEMENT



(57) Abstract: A tidally driven electricity generator (1) has a series of turbines (2), each of which is mounted under water in an offshore location. Each turbine (2) has blades (3) which are rotated by tidal flow of water, to power a respective generator (4), which outputs AC electrical power *via* a respective transformer (5) to a cable (6) and appropriate switchgear (7). The cable (6) is connected to a further transformer (8) located onshore, and the transformer (8) is connected to two AC inputs of a drive (9) containing an AC/DC converter, one input (10) of which is connected *via* a cable to a control feedback device (11). The control feedback device (11) may be a flow meter which determines the velocity of the tidal flow, or may contain look-up tables containing information relating to the velocity of tidal flow at any particular time. The drive (9) outputs DC electrical signals along cabling (13) to DC/AC converter (14), which outputs AC electrical power*via* transformer (15) to a fixed frequency local supply grid (16). The drive (9) also controls the speed of rotation of each turbine (2) by adjustment of the frequency of signals output to the turbines from the drive (9) *via* switchgear (7).

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